

YUSUPOV, I.; GUSEVA, N., red.; NAGIBIN, P., tekhn. red.

[Give a new form to the organization of meat production]  
Proizvodstva miasa - novuiu formu organizatorskoi raboty.  
Alma-Ata, Kazsel'khozgiz, 1962. 26 nos. in 1 vol. 15 p.  
(MIRA 17:1)

1. Pervyy sekretar' Yuzhno-Kazakhstanskogo krayevoy komitet  
partii (for Yusupov).

ZHUMATCV, Khamza Zhumatovich; DARDIK, Faina Grigor'yevna; GUSEVA, N.,  
red.; ABDULGAFAROV, Ye., red.; ZLOBIN, M., tekhn. red.

[Infectious hepatitis (Botkin's disease); its epidemiology  
and prevention] Infektsionnyi gepatit (bolezni' Botkina);  
epidemiologiya i profilaktika. Alma-Ata, Kazgosizdat, 1962.  
201 p. (MIRA 16:12)

(HEPATITIS, INFECTIOUS)

ZAMYATIN, Sergey Ivanovich (1900-1961), kand. med. nauk; GUSEVA, N.,  
red.; ABDULGAFAROV, Ye., red.; ZLOBIN, M., tekhn. red.

[Health resorts of Kazakhstan] Kurorty Kazakhstana. Alma-  
Ata, Kazgosizdat, 1962. 262 p. (MIRA 16:9)  
(KAZAKHSTAN--HEALTH RESORTS, WATERING PLACES, ETC.)

GUSEV, P.P., kand.biol.nauk; GUSEVA, N.A.

Heterosis in tomatoes and its utilization in the Far North.

Trudy po prikl. bot., gen. 1 ser. 32 no.3:133-138 '59.

(MIRA 14:5)

(Russia, Northern—Tomatoes)

(Heterosis)

S/153/60/003/005/007/016  
B013/B058

AUTHORS: Shebanova, M.P., Guseva, N.A.

TITLE: Condensation of 2,2,4 -Trimethyl-4-chloropentane With Organo-magnesium Compounds

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 5, pp. 881-884

TEXT: Three paraffin hydrocarbons containing two tertiary carbon atoms were prepared in this study: 2,2,4,4,6-pentamethyl heptane, 2,2,4,4-tetramethyl octane, and 2,2,4,4-tetramethyl decane. The synthesis was conducted by the Grignard - Würtz reaction by means of condensation of 2,2,4-trimethyl-4-chloropentane and isobutenyl chloride with n-butyl bromide or n-hexyl bromide. To prevent the transformation of isobutenyl chloride into diisobutylene, condensation was carried out at  $8^{\circ} - 10^{\circ}\text{C}$  by the method of V.P. Yavorskiy. In the distillation of the reaction products in vacuo, 15.5% of a fraction with the melting point at  $99.5^{\circ} - 102^{\circ}\text{C}$  (45mm Hg) was separated. Its properties corresponded to 2,4,4,6,6-pentamethyl heptene-1.

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Condensation of 2,2,4-Trimethyl-4-chloro-  
pentane With Organomagnesium Compounds

S/153/60/003/005/007/016  
B013/B058

The position of the double bond on the extreme carbon atom was proved by oxidation of the fraction mentioned with 2% potassium permanganate solution. Formic acid was separated as a consequence of oxidation. Hydrogenation of the fraction mentioned on a nickel catalyst produced 2,4,4,6,6-pentamethyl heptane. The 2,2,4-trimethyl-4-chloropentane was condensed with normal butyl bromide at 19°C only in the presence of 7-8% mercuric chloride, a maximum of 10% 2,2,4,4-tetramethyl octane being formed. Only 7% 2,2,4,4-tetramethyl decane was formed with n-hexyl bromide under equal conditions. The following was stated in conclusion: 2,2,4-trimethyl-4-chloropentane, which easily cleaves the hydrogen chloride, is little active in the synthesis of hydrocarbons with two tertiary carbon atoms. The use of halogen alkyl with a double bond in  $\beta$ -position to the halogen (isobutenyl chloride) increases the yield of hydrocarbons with tertiary carbon atoms. The yield of the condensate produced by the Grignard - Würtz reaction decreases with an extension of the normal radical of the halogen alkyl used. There are 10 references: 6 Soviet.

Card 2/3

Condensation of 2,2,4-Tetramethyl-4-chloro- S/153/60/003/005/007/016  
pentane With Organomagnesium Compounds B013/B058

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut im.  
D.I. Mendeleyeva. Kafedra tekhnologii neftekhimicheskogo  
sinteza (Moscow Institute of Chemical Technology imeni  
D.I. Mendeleyev. Department of Technology of Petrochemical  
Synthesis)

SUBMITTED: January 30, 1959

Card 3/3

GUSEVA, N.A.; BEZUMNOVA, F.I.; KUZOVKOVA, O.A.; ROMANENKO, V.V.

Outbreak of leptospirosis among residents of the village of Karalat, in Kamyziatsk District of Astrakhan Province. Zhur: mikrobiol. epid. i immun. 32 no.5:119-121 My '61. (MIRA 14:6)

1. Iz Astrakhanskoy oblastnoy sanitarno-epidemiologicheskoy stantsii, (KARALAT (ASTRAKHAN PROVINCE)—LEPTOSPIROSIS)



KHOKHRYAKOVA, V.S.; GUSEVA, N.A.

Effect of insecticides on some basic physiological and biochemical  
functions of plants. [Trudy] NIUIF no.164:23-24 '59.

(MIRA 15:5)

(Insecticides)

GUSEVA, N.A.; FITONOVA L.I.

Outbreak of tularemia in Astrakhan during the period of 1957-1958 and its causes. Zhur. mikrobiol., epid. i immun. 33  
no.7:19-22 J1 '62. (MIRA 17:1)

1. Iz Astrakhanskoy oblastnoy sanitarno-epidemiologicheskoy  
stantsii.

BEZUMNOVA, F.I.; GUSEVA, N.A.; KAZEYKINA, A.N.; AKIMEDZYANOVA, M.N.;  
FITONOVA, L.I.

Etiology of leptospirosis in Astrakhan Province. Zhur.mikrobiol.,  
epid. i immun. 42 no.2:45-48 F '65. (MIRA 18:6)

1. Astrakhanskaya oblastnaya sanitarno-epidemiologicheskaya  
stantsiya i Astrakhanskaya oblastnaya veterinarnaya laboratoriya.

L 12842-63 EXP(a)/EPA(a)-2/EWT(a)/EPF(a)/EPR/ENP(j)/T/ENH(a)/ENP(v) Po-4/  
Pq-4/Pr-4/PS-4/Pt-10 NW/FH/WH

ACCESSION NR: AP4047222 S/0190/64/006/010/1911/1916

AUTHOR: Gorbatkina, Yu. A.; Guseva, N. I.; Andreyevskaya, G. D.;  
Gatakhova, G. S.

TITLE: Physicomechanical properties of polymers modified with  
hydrophobic-adhesive compounds

SOURCE: Vyssokomolekulyarnyye soedineniya, v. 6, no. 10, 1964,  
1911-1914

TOPIC TAGS: glass reinforced plastic

ABSTRACT: A study has been made of the effect of the AK-2 additive  
(a diethoxysilane containing an amino group in the organic radical)  
on the mechanical properties, adhesiveness, and water resistance of  
certain polymers. The polymers used were HF-4 (phenol-formaldehyde-  
poly(vinyl butyral)) or an epoxy-resole polymer with or without 2%  
AK-2. The strength of polymer adhesion to alkali-free glass fibers  
was determined; glass fibers finished with ADM-3 coupling agent (an  
amino derivative of an organosilicon monomer) were used as controls.

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L 12842-65

ACCESSION NR: AP4047222

Adhesive strength increased both in the case of AM-2 (by 35%) and of AGM-3. Evidently AM-2 reacted both with the polymer and glass. AM-2 improved the mechanical properties of BF-4 films, indicating formation of high-density cross-linking. AM-2 also improved significantly the water resistance (strength after boiling in water) of glass-reinforced BF-4 plastics. Orig. art. has: 1 figure and 3 tables.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, AN SSSR)

SUBMITTED: 28Dec63

ATD PRESS: 3124

BNCL: 00

SUB CODE: MT

NO REF SOV: 006

OTHER: 004

Card 2/2

ANDREYEVSKAYA, G.D.; GORBATKINA, Yu.A.; GUSEVA, N.B.; KISELEV, B.A.;  
MIKHAL'SKIY, A.I.; STEPANOVA, V.N.

Structural change in a network polymer under the effect of an  
active organosilicon monomer. Vysokom.soed. 7 no.7:1254-1257  
Jl '65. (MIRA 18:8)

1. Institut khimicheskoy fiziki AN SSSR.

MANUKOVSKIY, N.F., Geroy Sotsialisticheskogo Truda, brigadir; LEBEDEVA, A.T., zven'ev. Geroy Sotsialisticheskogo Truda; KOLYADINA, A.A.; GUSEVA, M.F.; GUBANOVA, M.T.; GURENKO, A.G., svinar'; SVIRIDOV, I.G., svinar'; SHERSHOVA, M.V., zootekhnik; GORIN, D.P.; TAMBOVTSEV, P.K.; ULIN, I.; SAYTANIDI, L.D., tekhn. red.

[Leaders of socialist competition from Voronezh tell their stories]  
Rasskazyvaiut peredoviki-voronezhtsy. Moskva, Izd-vo M-va sel'khoz.  
RSFSR, 1960. 54 p. (MIRA 14:11)

1. Brigada kompleksnoy mekhanizatsii kolkhoza imeni Kirova Voronezhskoy oblasti (for Manukovskiy). 2. Kolkhoz "Rossiya" Voronezhskoy oblasti (for Lebedeva, Shershova). 3. Ryadovyye zvena vysokoy proizvoditel'nosti kolkhoza imeni Stalina Voronezhskoy oblasti (for Kolyadina, Guseva). 4. Zven'yevaya kolkhoza imeni S.M. Kirova Voronezhskoy oblasti (for Gubanova). 5. Sovkhoz "Vorob'yevskiy" Voronezhskoy oblasti (for Gurenko). 6. Sovkhoz "Maslovskiy" Voronezhskoy oblasti (for Sviridov). 7. Predsedatel' kolkhoza "Podgornoye" Voronezhskoy oblasti (for Gorin). 8. Direktor sovkhoza "Vtoraya pyatiletka" Voronezhskoy oblasti (for Tambovtsev).

(Voronezh Province--Stock and stockbreeding)  
(Socialist competition)

BABUSHKIN, A.A.; GUSEVA, N.G.; YEMEL'YANOVA, V.M.

Infrared spectra of molecular compounds composed of boron tri-  
fluoride and various amines. Fiz. sbor. no.3:212-213 '57.  
(MIRA 11:8)

1. Moskovskiy ordena Lenina i ordena Trudovogo Krasnogo Znameni  
gosudarstvennyy universitet im. M.V. Lomonosova i Institut  
fizicheskoy khimii AN SSSR.

(Amine--Spectra)

(Boron fluoride--Spectra)



SOV/51-5-8-5/21

AUTHORS: Babushkin, A.A., Gribov, L.A., Guseva, N.G. and Yemel'yanova, V.M.

TITLE: Investigation of the Vibrational Spectra of the Molecular Compounds of Boron Trifluoride with Nitrogen and Oxygen-Containing Substances.  
(Issledovaniye kolebatel'nykh spektrov molekulyarnykh soyedineniy trekhftoristogo bora s azot- i kislorodsoderzhashchimi veshchestvami).  
II. On the Structure of the Molecular Compounds of Boron Trifluoride with Methanol, Ethanol and Water (II. O stroenii molekulyarnykh soyedineniy trekhftoristogo bora s metanolom, etanolom i vodoy).

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 3, pp 256-263 (USSR)

ABSTRACT: Part I is given in Ref 1. Boron trifluoride forms two types of molecular compounds with water and the two alcohols. In one type there is one molecule of water or alcohol for each molecule of  $\text{BF}_3$  (1:1) while in the other type there are two molecules of water or alcohol for each  $\text{BF}_3$  molecule (1:2). The authors obtained the infrared absorption spectra of molecular compounds of both types:  $\text{BF}_3 \cdot \text{H}_2\text{O}$ ,  $\text{BF}_3 \cdot 2\text{H}_2\text{O}$ ,  $\text{BF}_3 \cdot \text{CH}_3\text{OH}$ ,  $\text{BF}_3 \cdot 2\text{CH}_3\text{OH}$ ,  $\text{BF}_3 \cdot \text{C}_2\text{H}_5\text{OH}$ ,  $\text{BF}_3 \cdot 2\text{C}_2\text{H}_5\text{OH}$ . The measurements were made in two spectral regions: the region of fundamental valence vibrations of OH and CH ( $2000-3800 \text{ cm}^{-1}$ ) and the

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SO/51-5-3-5/21

Investigation of the Vibrational Spectra of the Molecular Compounds of Boron Trifluoride with Nitrogen and Oxygen-Containing Substances. II. On the Structure of the Molecular Compounds of Boron Trifluoride with Methanol, Ethanol and Water.

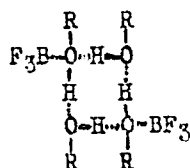
region of absorption of their first harmonics ( $5000-7300\text{ cm}^{-1}$ ). The measurements in the harmonic region were necessary in order to avoid confusion due to possible decomposition of certain (1:1) molecular compounds. The measurements were made using an IKS-11 spectrometer. In the region  $3500-3800\text{ cm}^{-1}$  a two-beam IKS-2 spectrometer was also used. For measurements on corrosive liquids a special cell was made of teflon (Fig 1). This was used to measure the absorption in the fundamental frequency region. In measurements of absorption in the harmonic region a glass cell was used.  $\text{BF}_3$  was obtained by the method described in Ref 1. Synthesis of molecular compounds was carried out in vacuum. A known amount of the additive was placed into the reaction vessel and frozen. The vessel was pumped out and then filled with an appropriate amount of  $\text{BF}_3$ . Fig 2 shows the absorption spectra of the molecular compounds  $\text{BF}_3 \cdot 2\text{CH}_3\text{OH}$ ,  $\text{BF}_3 \cdot 2\text{C}_2\text{H}_5\text{OH}$ ,  $\text{BF}_3 \cdot 2\text{H}_2\text{O}$  (curves 1, 2 and 3 respectively) in the region  $2400-3800\text{ cm}^{-1}$ . Fig 3 shows the absorption spectra of all the six molecular compounds studied, in the region  $5700-7500\text{ cm}^{-1}$ . No absorption bands were found which could be

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SC7351-5-5-5/21

Investigation of the Vibrational Spectra of the Molecular Compounds of Boron Trifluoride with Nitrogen and Oxygen-Containing Substances. II. On the Structure of the Molecular Compounds of Boron, Trifluoride with Methanol, Ethanol and Water.

ascribed to valence vibrations of OH of the oxonium ion. The experimental results lead to the conclusion that the (1:1) molecular compounds are polymerically associated by means of the hydrogen bond, and the (1:2) complexes are dimers with the following structure



There are 3 figures and 12 references, 3 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii AN SSSR; Moskovskiy gosudarstvennyy universitet, fizicheskiy fakul'tet, kafedra optiki (Institute of Physical Chemistry, Academy of Sciences of the U.S.S.R.; Moscow State University, Department of Physics, Chair of Optics)

SUBMITTED: October 28, 1957

Card 3/3

1. Boron fluoride compounds--Spectra 2. Infrared spectroscopy--Applications

AUTHORS: Babushkin, A. A., Gribov, L. A., Guseva, SOV/48-22-9-34/40  
N. G., Yemel'yanova, V, M.

TITLE: Spectroscopic Investigations of the Structure of Some  
Complex Compounds (Spektroskopicheskiye issledovaniya  
stroyeniya nekotorykh kompleksnykh soyedineniy) 2. On the  
Structure of the Molecular Compounds of Boron Fluoride  
With Methanol, Ethanol and Water (2. O stroyenii molekulyar-  
nykh soyedineniy trekhftoristogo bora s metanolom, etanolom  
i vodoi)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1958,  
Vol 22, Nr 9, pp 1131 - 1133 (USSR)

ABSTRACT: This is a condensation of the paper which was published  
under the above subtitle Nr 2 in the "Izvestiya Akademii  
nauk SSSR" by A.A.Babushkin. Boron fluoride forms two  
types of molecular compounds with water and alcohols: in  
the first type one molecule of water or of alcohol falls  
to one molecule of  $F_3B$ , (1:1), in the second type two  
molecules of water or of alcohol fall to one molecule of  
 $F_3B$  (1:2). At present several authors share the opinion

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Spectroscopic Investigations of the Structure of SOV/48-22-9-34/40  
Some Complex Compounds. 2. On the Structure of the Molecular Compounds  
of Boron Fluoride With Methanol, Ethanol and Water

with Paushkin (Ref 3) according to which the molecular compounds (1:2) can be considered to represent oxonium-type compounds:  $[H_2O]^+[F_3B.OH]^-$ ,  $[R.OH_2]^+[F_3B.OR]^-$ .

Hence the structure of the molecular compounds in question cannot be regarded to be established beyond doubt. Attempts to find an absorption which is characteristic of the oxonium ion were unsuccessful. The absorption spectra in the range of the first harmonic of the OH valence oscillations (Fig 1) show a great difference between the spectra of  $F_3B.1ORH$  and of  $F_3B.2ORH$ . As no evidence was found in the spectrum confirming the presence of the oxonium ion it can be assumed that the oxonium form is either not realized at all or that its concentration is too low. This paper presents a comparison of the wave numbers of the fundamental oscillation and of the first harmonic of the OH valence oscillations of methanol, of ethanol, and of water without association (diluted solutions and vapors)

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Spectroscopic Investigations of the Structure of SOV/48-22-9-34/40  
Some Complex Compounds. 2. On the Structure of the Molecular Compounds  
of Boron Fluoride With Methanol, Ethanol and Water

with the frequencies which correspond to the maxima of the absorption bands (1:2). The experience gained by this comparison leads to the conclusion that these compounds are associated among themselves by means of a hydrogen bond. The wide absorption bands of the compound (1:1) are also caused by their association by means of a hydrogen binding. The difference in the band widths and in the wave numbers corresponding to their maxima can be traced back to the different process of formation of the hydrogen binding in both (1:1) and (1:2) compounds. The existence of a narrow band in the compound (1:2) is considered to be related to the association of two complexes in which four hydrogen bindings form a closed cycle structure formula (II). The absence of absorption bands which are characteristic for the terminal hydroxyl group (hydrogen binding) in the frequency range of the fundamental frequency and first harmonic of the OH valence oscillations also corroborates the existence of the structure (II). There are

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Spectroscopic Investigations of the Structure of SOV/48-22-9-34/40  
Some Complex Compounds. 2. On the Structure of the Molecular Compounds  
of Boron Fluoride With Methanol, Ethanol and Water

1 figure and 3 references, 1 of which is Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute  
of Physical Chemistry, AS USSR)

Card 4/4

SURA, V.V., kandidat meditsinskikh nauk; GUSEVA, N.G., kandidat  
meditsinskikh nauk

Diffuse osteoporosis in liver cirrhosis. Sov.med. 21 no.4:107-109  
Ap '57. (MIRA 10:7)

1. Iz obshchey i gospiatal'noy terapevticheskoy kliniki (zav. -  
deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR prof. Ye.M.  
Tareyev) Sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo  
ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.

(LIVER CIRRHOSIS, compl.

diffuse osteoporosis)

(OSTEOPOROSIS, etiol. and pathogen.

live cirrhosis)



GUSEVA, N.G. ....

Lesions of the heart in systemic scleroderma. Terap. arkh. 32  
no. 2:30-38 F '60. (MIRA 14:1)  
(SCLERODERMA) (HEART---DISEASES)

GUSEVA, N.G. (Moskva, Petroverigskiy per., d.10, kv.3); SPASSKAYA, P.A.

Clinical and roentgenological characteristics of pulmonary lesions in systemic scleroderma. Vest. rent. i rad. 35 no. 4:31-36 J1-Ag 160. (MIRA 14:2)

1. Iz kafedry obshchey i gospi'tal'noy terapii sanitarno-gigiyenicheskogo fakul'teta (zav. - deystvitel'nyy chlen AMN SSSR prof. Ye.M. Tareyev) i Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova i Instituta revmatizma (direktor - deystvitel'nyy chlen AMN SSSR prof. A.I. Nesterov) Ministerstva zdravookhraneniya RSFSR.

(LUNGS—DISEASES) (SCLERODERMA)

GUSEVA, N.G.; GRITSMAN, N.N.

True sclerodermic kidney. Sov.med. 25 no.2:41-47 F '61.  
(MIRA 14:3)

1. Iz otdeleniya pogranichnykh form (zav. - deystvitel'nyy chlen  
AMN SSSR prof. Ye.M.Tareyev) i patomorfologicheskoy laboratorii  
(zav. - kand.med.nauk N.N.Gritsman) Instituta revmatizma (direktor -  
deystvitel'nyy chlen AMN SSSR prof. A.I.Nesterov).  
(KIDNEYS--DISEASES) (SCLERODERMA)

NASONOVA, V.A.; GUSEVA, N.G.; POLYANSKAYA, L.G.

External respiration in sclerodermic pneumosclerosis. Terap.  
arkh. no.8:86-91 '62. (MIRA 15:12)

1. Iz otdeleniya pograniichnykh form (nauchnyy rukovoditel' -  
deystvitel'nyy chlen AMN SSSR prof. Ye.M. Tareyev) Instituta  
revimatizma (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I.  
Nestorov) AMN SSSR.  
(SCLERODERMA) (RESPIRATION) (PULMONARY FIBROSIS)

GUSEVA, N.G.; SPASSKAYA, P.A.

Lesions of the gastrointestinal tract in systemic scleroderma.  
Vest. i rent. i rad. 37 no.2:11-16 Mr-Apr '62. (MIRA 15:4)

1. Iz otdeleniya pogranichnykh form (nauchnyy rukovoditel' -  
deystvitel'nyy chlen AMN SSSR prof. Ye.M.Tareyev) i rentgenologicheskogo  
otdeleniya (zav. - prof. V.V.Zodiyev) Gosudarstvennogo nauchno-  
issledovatel'skogo instituta revmatizma (dir. - deystvitel'nyy chlen  
AMN SSSR prof. A.I.Nesterov).  
(SCLERODERMA) (ALIMENTARY CANAL---DISEASES)

SEVEROVA, E.Y.; GUSEVA, N.G.

A case of cardiac aneurysm complicating scleroderma. Cor vasa 5  
no.3:230-235 '63.

1. Department of General Medicine, First [Sechenov] Moscow  
Medical Institute and the State Research Institute of Rheuma-  
tology, Moscow.

(SCLERODERMA) (HEART ANEURYSM)  
(HEART ENLARGEMENT) (HEART BLOCK)  
(HEART FAILURE, CONGESTIVE)

NASONOVA, V.A.; GUSEVA, N.G.; NESGOVOROVA, L.I.; IVANOVA, M.M.

Basic principles of compound treatment of major collagenoses.

Sov. med. 28 no.5:46-51 My '65.

(MIRA 18:5)

1. Institut revmatizma (dir. - prof A.I.Nesterov) AMN SSSR, Moskva.

GUSEVA, N. I.

"Dispensarization as the Main Method of Combating Hypertonia."  
Kuybyshev State Medical Inst, Kuybyshev, 1955. (Dissertation  
for the Degree of Candidate in Medical Sciences)

SO: M-955, 16 Feb 56



GUSEVA, N.I.  
GERMANOV, A.I., professor, kandidat meditsinskikh nauk; GUSEVA, N.I.,  
(Kuybyshev)

A year's work of an organizational and consultation center in  
the control of hypertension. Klin. med. 35 no.1:21-25 Ja '57  
(MIRA 10:4)

1. Iz gosptal'noy terapevticheskoy kliniki (zav.-prof. A.I.  
Germanov) Kuybyshevskogo meditsinskogo instituta.

(OUTPATIENT SERVICES

control of hypertension)

(HYPERTENSION, prev. and control  
outpatient serv. in Russia)

GUSEVA, N.I., dots.

Malignant hypertension. Terap.arkh. 30 no.9:36-43 S'58 (MIRA 11:10)

1. Iz gosital'noy terapevticheskoy kliniki (zav. - prof. A.I. Germanov). Kuybyshevskogo meditsinskogo instituta.  
(HYPERTENSION,  
malignant (Rus))

GUSEVA, N.I., dots. (Kuybyshev)

Treatment of hypertension with reserpine. Klin.med. 36 no.3:68-71  
Mr '58. (MIRA 11:4)

1. Iz gospi'tal'noy terapevticheskoy kliniki (zav. ~ prof. A.I.  
Germanov) Kuybyshevskogo meditsinskogo instituta.  
(RESERPINE, ther. use  
hypertension (Rus))

GERMANOV, A.I., prof.; GUSEVA, N.I., dotsent

Outpatient treatment of hypertension. Kaz. med. zhur. no. 2:79-  
83 Mr-Apr '61. (MIRA 14:4)

1. Gosptal'naya terapevticheskaya klinika (zav. - prof. A.I.  
Germanov) Kuybyshevskogo meditsinskogo instituta.  
(HYPERTENSION)

GUSEVA, E.I., dotsent

Level of nonhemoglobin iron in the blood serum in hypertension:  
Terap.arkh. 33 no.2:54-58 F '61. (MIRA 14:3)

1. Iz gospital'noy terapevticheskoy kliniki (zav. - prof. A.I.  
Germanov) Kuybysheva.  
(HYPERTENSION) (IRON IN THE BODY)

GUSEVA, N. I., dotsent

Once more "On malignant hypertension" (reply to opponents). Terap.  
arkh. 33 no.5:105-107 My '61. (MIRA 14:12)

1. Iz gosspital'noy terapevticheskoy kliniki (zav. - prof. A. I.  
Germanov) Kuybyshevskogo meditsinskogo instituta.

(HYPERTENSION)

GUSEVA, N. I.

Cholesterol content of blood in hypertension. Terap. arkh. no.9:  
16-20 '61. (MIRA 15:2)

1. Iz gosspital'noy terapevticheskoy kliniki (zav. - prof. A. I.  
Germanov) Kuybyshevskogo meditsinskogo instituta.

(HYPERTENSION) (CHOLESTEROL)

GUSEVA, N.I., dotsent; SPIRINA, P.V., aspirant

Norms of arterial pressure and occurrence of hypertension among  
some contingents of the population of the city of Kuybyshev.  
Kaz. med. zhur. no.1:14-16 Ja 47'63. (MIRA 16:8)

1. Gosptal'naya terapevticheskaya klinika (zav. - prof. A.I.  
Germanov) Kuybyshevskogo meditsinskogo instituta.  
(KUYBYSHEV---HYPERTENSION)



KOSHLYAKOV, N.S.; GUSEVA, N.K.

Ordinary Laplace type differential equation of the third order.  
Inzh.-fiz.zhur. no.5:71-75 My '58. (MIRA 12:1)  
(Differential equations)

GUSEVA, N. K.

42771

24.7000

S/185/62/007/010/014/020  
D234/D308

AUTHORS: Lyskovych, O. B., Vaydanych, V. I. and Guseva, N. K.

TITLE: Investigation of the absorption spectra of NaI crystals as a function of Tl concentration at different temperatures

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 10, 1962, 1129-1131

TEXT: Investigations were made at room and at liquid nitrogen temperatures for Tl concentrations ranging from  $10^{-6}$  to  $45 \times 10^{-5}$  molar parts in crystals and 2% and 4% by weight in melt. There is an absorption band at 292 mμ which becomes wider with increasing Tl concentration. An inflection is observed on the absorption curve near 250 mμ for small Tl concentrations. At the temperature of liquid nitrogen there is a sharp absorption band about 250 mμ, observed only in crystals with small Tl concentration. There is another absorption maximum at 243 - 244 mμ in crystals. After x ray irradiation at liquid nitrogen temperature a new weak band (313.5 m) ap-

Card 1/2

Investigation of the ...

S/185/62/007/010/014/020  
D234/D308

pears if Tl concentration is large. There is 1 figure and 1 table.

ASSOCIATION: L'vivs'kyi derzhniversytet im. Iv. Franka (L'viv  
University im. Iv. Franko)

SUBMITTED: June 14, 1962

Card 2/2

L 47-15-65 EWP(t)/EWA(h)/EWT(l)/EWT(m)/T/EMP(b)/EPA(s)-2 Pt-7/Pt-7/Feb IUP(c)  
AT/JD/JG

ACCESSION NR: AP5009517

S/0048/65/029/003/0423/0426

AUTHOR: Lyskovich, A.B.; Cherniy, Z.P.; Guseva, N.K.

TITLE: Investigation of the roentgenoluminescence and thermoluminescence of thallium activated sodium iodide crystal phosphors [Report, 12th Conference on Luminescence held in L'vov, 30 Jan-5 Feb 1964]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 3, 1965, 423-426

TOPIC TAGS: luminescence, luminescent crystal, sodium compound, iodine compound, thallium, thermoluminescence, x ray

ABSTRACT: This paper reports the results of a continuation of earlier work on the roentgenoluminescence of NaI:TI, undertaken because of the technical importance of the material as a scintillation detector for soft x-rays. The present work concerns NaI crystals with a high (> 2 mole %) thallium content. Roentgenoluminescence spectra excited by 40 keV x-rays were recorded at temperatures from 100 to 650°K (11 of these spectra are presented graphically), glow curves were recorded, and the spectral composition of the low temperature thermostimulated emission was examined. These results are presented graphically and are discussed at some length. In addi-

Card 1/3

L 43915-65

ACCESSION NR: AP5009517

tion to the principal roentgenoluminescence emission band near 420 mμ, a weak band was clearly observable at 330 mμ even at the lowest temperature. This band increased in intensity with increasing temperature up to 450°K, and decreased in intensity with further increase of temperature. The peak of the principal emission band shifted toward the shorter wavelengths with increasing temperature, from about 430 mμ at 100°K to 400 mμ at 520°K. The roentgenoluminescence yield decreased rapidly with decreasing temperature in the region from 150 to 100°K; this is ascribed to self-trapping of holes. The yield decreased with increasing temperature above 400°K, owing to thermoquenching. Five peaks were observed in the glow curve; these occurred at 120, 140, 160, 220, and 295°K. Only radiation of the thallium luminescence band with a peak at 420 mμ contributed to the two lowest temperature peaks of the glow curve. Of the three low temperature glow curve peaks, only one appeared in crystals grown in an inert gas atmosphere. From the effect of low temperature x-ray irradiation on the behavior of the 295°K glow curve peak, it is concluded that the trapping centers that are responsible for this radiation, and thus adversely affect the scintillation properties of the phosphor, may be due to radiation (and other) damage to the crystal. Orig. art. has: 5 figures.

Card 2/3 Submitted 00

GARANINA, G.P.; YERLYKOVA, G.Ye.; GUSEV, N.F.

Antibiograms of dysenteric bacilli based on data of the Krasnoyarsk  
Territorial Sanitary Epidemiological Station. Antibiotiki 10  
no.5:465-466 My '65. (MIRA 18:6)

1. Krasnoyarskiy meditsinskiy institut.

GUSEVA, N.K. [Husieva, N.K.]; LYSKOVICH, A.B. [Lyskovych, O.E.]

Photoluminescent characteristics of NaI and NaI(Tl) crystals.  
Ukr.fiz.zhur. 10 no.12:1354-1358 D '65.

(MIRA 19:1)

1. L'vovskiy gosudarstvennyy universitet im. Franko. Submitted  
January 20, 1965.

GUSEVA, N.N.

Winter gas conditions of Kuybyshev Reservoir during the periods of  
1957-1958 and 1958-1959. Biul.Inst.biol.vodokhran. no.11:53-56 '61.

(MIRA 15:8)

1. Kuybyshevskaya biologicheskaya stantsiya Instituta biologii  
vodokhranilish AN SSSR.

(KUYBYSHEV RESERVOIR--GASES) (ICE ON RIVERS, LAKES, ETC.)



GUSEVA, N.N.; SHARONOV, I.V.

Wintering conditions for fishes in the Cheremshan and Suskan Bays  
of Kuybyshev Reservoir. Biul. Inst. biol. vodokhran. no.12:45-49  
'62. (MIRA 16:3)

1. Kuybyshevskaya stantsiya Instituta biologii vodokhranilishch AN SSSR.  
(Kuybyshev Reservoir—Fishes)

DOLIDZE, M.V.; GUSEVA, N.N.; RETIVAYA, T.V.; KUNDZINYA, B.A.

Red and infrared spectral classification of M-type stars from  
low-dispersion spectra in Cygnus IV. Biul. Akad. astrofiz.  
obs. no.28:137-156 '62. (MIRA 16:7)  
(Stars--Spectra)

SAL'KOVA, Ye.G.; GUSEVA, N.N.

Role of pectolytic enzymes of *Vorticillium daniellae* in the development of cotton wilt. Dokl. AN SSSR 163 no.2:515-518 J1 '65. (MIRA 18:7)

1. Institut biokhimii im. A.N.Bakha AN SSSR i Vsesoyuznyy institut zashchity rasteniy. Submitted November 18, 1964.

YELEMANOV, A.; GUSEVA, N.<sup>p</sup>, red.; NAGIBIN, P., tekhn. red.

[75 and 16] 75 i 16. Alma-Ata, Kazsel'khozgiz, 1962.  
26 nos. in 1 v. 17 p. (MIRA 17:1)

1. Ministr sel'skogo khozyaystva Kazakhskoy SSR (for Yelemanov).

BANKOV, Andrey Yakovlevich; GUSEVA, N., red.; NAGIBIN, P., tekhn.  
red.

[Organization of sheep feeding in the Virgin Territory]  
Organizatsiia kormleniia ovets v Tselinnom krae. Alma-  
Ata, Kazsel'khozgiz, 1962. 54 p. (MIRA 17:2)

PAK, A.; GUSEVA, N., red.; NAGIBIN, P., tekhn.red.

[100 kilograms of meat from each duck layer] 100 kilo  
kilogrammov miasa ot kazhdoi utki-nesushki. Alma-Ata,  
Kazsel'khosgiz, 1962. 26 nos. in 1 v. 14 p.  
(MIRA 17:1)

DIYAROV, Kurman Diyarovich; GUSEVA, N.P., red.; KUZEMBAYEVA, A.I.,  
tekhn. red.

[Animal husbandry of Kazakhstan] Zhivotnovodstvo Kazakhstana.  
Alma-Ata, Kazsel'khozgiz, 1963. 349 p. (MIRA 17:2)

DIYAROV, Kurman Diyarovich; GUSEVA, N.P., red.

[Animal husbandry in Kazakhstan] Zhivotnovodstvo Kazakhstana.  
Alma-Ata, Kazzol'khogiz, 1963. 349 p. (MIRA 17:5)



GUSEVA, M.P.

PETROV, Aleksandr Iosifovich, doktor biol. nauk, prof.; KHARIN, Sergey Aleksandrovich, kand. sel'skokhozyaystvennykh nauk; GUSEVA, M.P., red.; NAZARENKO, L.I., red.; OYSTRAKH, V.G., tekhn.red.

[Protection of agricultural crops from pests in Kazakhstan]  
Zashchita sel'skokhoziaistvennykh kul'tur ot vreditel'ei v Kazakh-  
stane. Alma-Ata, Kazakhskoe gos. izd-vo, 1957. 578 p. (MIRA 11:4)  
(Kazakhstan--Agricultural pests)

DAULENOV, Sal'kei Daulenovich; ZOZYLYA, Mordko Shlemovich; ~~GUSEVA, —~~  
N.P., red.; SAVICH, M.P., red.; NAGIBIN, P.A., tekhn. red.

[Water resouces of Kazakhstan] Vodnoe khoziaistvo Kazakhstana.  
Alma-Ata, Kazakhskoe gos. izd-vo, 1959. 269 p. (MIRA 15:5)  
(Kazakhstan--Water supply)

TKACHENKO, V.A.; KOZLOV, V.M.; GUSEVA, N.S.

Investigating certain regularities in the reduction of iron-titanium  
concentrates in the solid phase. Titan i ego splavy no.9:70-81 '63.  
(MIRA 16:9)

(Titanium--Electrometallurgy)

TKACHENKO, V.A.; KOZLOV, V.M.; GUSEVA, N.S.; Primali uchastiye: ~~RAPOPORT~~,  
M.B.; MIKHAYLOV, N.S.

Making high-titanium slags of iron-titanium concentrates from coastal placers. Titan i ego splavy no.9:86-95 '63. (MIRA 16:9)  
(Titanium—Electrometallurgy)

KOZLOV, V.M.; GUSEVA, N.S.; FIRFAROVA, I.B.

Anomalous behavior of iron-titanium concentrates in the course of their  
solid-phase reduction. Zhur. prikl. khim. 38 no.7:1436-1443 J1 '65.  
(MIRA 18:7)

1. Vsesoyuznyy alyuminiyev-magniyevyy institut.

L 36440-66 EWT(m)/T/EWP(t)/ETI IJP(c) JW/JD

ACC NR: AP6018070

SOURCE CODE: UR/0076/66/040/005/1064/1069

AUTHOR: Tyapkina, V. V.; Guseva, N. S.

ORG: Institute of Physical Chemistry, Academy of Sciences SSSR (Institut fizicheskoy khimii akademii nauk SSSR)

TITLE: Investigation of the interaction processes between the surface<sup>1</sup> of silicon and fluorine and hydrogen fluoride<sup>2</sup>

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 5, 1966, 1064-1069

TOPIC TAGS: surface property, silicon, nonferrous metal, fluorine, fluorine compound, silicon single crystal

ABSTRACT: The kinetics of interaction of the oxidized silicon surfaces with fluorine and hydrogen fluoride was studied at room temperature using the microbalance technique. The object of the work was to fill the gap in the pertinent literature. Samples of silicon n-type single crystals were cut out along the 111-plane, polished, etched with a  $\text{HNO}_3$ -HF mixture, and washed with double distilled water. The surface of the silicon samples was oxidized either by treatment with dry oxygen

UDC: 541.124/.128

Card 1/2

L 36440-66

ACC NR: AP6018070

at 1100°C (oxide layer thickness 0.15-0.20  $\mu$ ) or treatment with steam in argon at 1200°C (oxide layer thickness 1-2  $\mu$ ). Fluorine pressures varied from 11 to 44 mm Hg and the HF pressure was less than 100 mm Hg. In the range up to 0.5 g, the accuracy of the microbalance measurements were approximately  $1.8-2 \times 10^{-6}$  g. Prior to treatment with HF, samples of oxidized silicon were treated with fluorine. The dependence of the removal of the oxide layer from the silicon surface upon the duration of the HF treatments is graphed. In the case of surface oxidation with dry oxygen, pretreatment with fluorine had very small effect on the rate of oxide removal by subsequent treatment with HF. In the case of surface oxidized with steam in argon, the average rate of oxide removal was  $0.04 \cdot 10^{-6}$  g/cm<sup>2</sup>:min in the case of pretreatment with fluorine and  $12 \cdot 10^{-6}$  g/cm<sup>2</sup>:min without such pretreatment. The effect of the pretreatment with fluorine is traced to the removal of moisture from the oxide layer. Orig. art. has: 7 figures.

SUB CODE: 07/ SUBM DATE: 19Dec64/ ORIG REF: 003/ OTH REF: 003

20/

Card 2/2 *g*

COUNTRY : USSR  
CATEGORY : General Problems of Pathology. Tumors.  
Comparative Oncology. Animal Tumors  
ABS. JOUR. : RZhBiol., No. 23 1958, No. 107067  
AUTHOR : Chernyak, V.Z.; Guseva, N.V.  
INST. : Leningrad Veterinary Institute.  
TITLE : A Case of "Cauliflower Disease" ( Papilloma-  
tosis ) in the Mel.  
ORIG. PUB. : Sb. rabot. Leningr. vet. in-ta, 1957, vyp. 16,  
161-164.  
ABSTRACT : No Abstract.

CARD: 1/1



GUSEVA, N.V.; SHOR, V.G.; YAKOVLEV, A.M. (Leningrad)

Two cases of calcinosis of the skin and subcutaneous tissues in scleroderma. Klin. med. 37 no.5:146-149 '59. (MIRA 12:8)

1. Iz kafedry gosital'noy terapii (i.o. nach. - prof. M.L. Shcherba)  
Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

(SCLERODERMA, metab.

calcinosis of skin & subcutaneous tissues (Rus))

(CALCINOSIS, etiol. & pathogen.

skin & subcutaneous tissues in scleroderma (Rus))

PROTASOV, A.I., dotsent; SINEV, A.V., prof.; SMIRNOV, A.M., dotsent;  
 BAZHENOV, A.N., dotsent; VIL'NER, A.M., prof.; BASHMURIN, A.F.,  
 dotsent; SHAKALOV, K.I., prof.; VELLER, A.A., prof.; NIKANOROV,  
 V.A., prof.; FEDOTOV, V.P., dotsent; KUZNETSOV, G.S., prof.;  
 BOCHAROV, I.A., prof.; SHCHERBATYKH, P.Ya., prof.; TSION, R.A.,  
 prof.; GRIBANOVSKAYA, Ye.Ya., dotsent; ADAMANIS, V.F., assistant;  
 KOLABSKIY, N.A., dotsent; MITSKEVICH, V.Yu., dotsent; GUSEVA, N.V.,  
 dotsent; MYSHKIN, P.P., dotsent; GUBAREVICH, Ya.G., prof.;  
 FEDOTOV, B.N., prof.; DOBIN, M.A., dotsent; SIROTKIN, V.A., prof.  
 [deceased]; KUZ'MIN, V.V., prof.; YEVDOKIMOV, P.D., prof.; POLYAKOV,  
 A.A., prof.; POLYAKOV, P.Ya., red.; BARANOVA, L.G., tekhn.red.

[Concise handbook for the veterinarian] Kratkii spravochnik veteri-  
 narnogo vracha. Leningrad, Gos.izd-vo sel'khoz.lit-ry, 1960. 624 p.  
 (MIRA 13:12)

(Veterinary medicine)

GOLOTA, A.I., dotsent; NALETOV, N.A., prof.; GUSEVA, N.V., dotsent

Training and skill improvement of personnel. Veterinariia 41  
no.2:100-108 F '64. (MIRA 17:12)

1. Moskovskaya veterinarnaya akademiya (for Golota. 2. Moskovskiy  
tekhnologicheskii institut myasnoy i molochnoy promyshlennosti  
(for Naletov). 3. Leningradskiy veterinarnyy institut (for Guseva).

USSR / Pharmacology, Toxicology. Cardiovascular Drugs. V

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42383.

Author : ~~Guseva, O. A.~~  
Inst : Chkalov Medical Institute.  
Title : Neuro-reflex Factors in the Mechanism of Eryside  
Action.

Orig Pub: Tr. Chkalovskogo med. in-ta, 1956, vyp. 5, 85-91.

Abstract: The role of the central nervous system in the mechanism of the action of eryside (I) was investigated during the treatment of 34 patients with manifestations of heart failure of various etiology. The patients received I in doses of 0.5-1 ml intravenously every other day; 1/2 hour prior to the injection of I the patients received 3-5 ml of a 10% solution of NaBr (II) intravenously. Under the effect of I, slowing of the pulse by an aver-

Card 1/2

USSR / Pharmacology, Toxicology. Cardiovascular Drugs. V

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42383.

**Abstract:** age of 16 pulsations per minute was observed, after II - by 11, after I and II - by 19. The intensification of the action of I by bromide was occasionally delayed and took place only after prolonged combined administration. The slowing of the pulse was accompanied by general improvement in the patients' condition. The positive effect of combined therapy was usually observed in patients with predominating processes of excitation. This effect was absent in patients with prevailing inhibitive processes. In one patient, receiving I for a period of 2 months, injection of physiological solution had the same effect on the pulse and EKG as the injection of I. -- L. N. Lavrent'yev

Card 2/2

25

MEZHEBOVSKIY, R.G.; GUSEVA, O.A. (Orenburg)

Treatment of refractory forms of cardiac insufficiency. Klin.  
med. no.3:112-117 '62. (MIRA 15:3)

1. Iz gosital'noy terapevticheskoy kliniki (zav. .. prof.  
R.G. Mezhebovskiy) Orenburgskogo meditsinskogo instituta.  
(HEART FAILURE)

S/081/63/000/001/005/001  
B101/B186

AUTHOR: Guseva, O. N.

TITLE: Optical measurement of the absorption of ultrasonic waves in superheated vapors of saturated hydrocarbons

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 55, abstract 1B346 (In collection: Primeneniye ul'trazvukust. k issled. veshchestva [Application of ultrasonics to the investigation of substances], no. 16, M., 1962, 69 - 82)

TEXT: The superheated vapors of hexane, heptane, and octane were investigated by measuring the absorption of ultrasonic waves at 1 - 5 Mc/sec using optical diffraction. Decreasing absorption with increasing temperature was observed for the hydrocarbon vapors. The dependence  $\alpha/\nu^2$  ( $\alpha$  = absorption coefficient,  $\nu$  = frequency) is approximately of the same type for all substances studied; it approaches linearity with increasing temperature. An analysis of the course of  $\alpha/\nu^2$  proves a divergence from the classical law of absorption for the range of temperatures, pressures, and frequencies investigated. [Abstracter's note: Complete translation.]  
Card 1/1

GUSEVA, O.V.

Chemical Abst.  
Vol. 48 No. 5  
Mar. 10, 1954  
Organic Chemistry

Reactions of aliphatic diazo compounds with unsaturated compounds. XI. Reaction of ethyl diazoacetate with allyl chloride. I. A. D'yakonov and N. B. Yudinova (Leningrad State Univ.). *J. Gen. Chem. U.S.S.R.* 22, 1393-7 (1952) (Engl. translation). See *C.A.* 47, 4293c. XII. Condensation reactions of diphenyldiazomethane and diazoacetic ester with allyl acetate. I. A. D'yakonov and O. V. Guseva. *Ibid.* 1399-1405.—See *C.A.* 47, 4293c.

H. L. H.

7-27-54



D'YAKONOV, I. A.; GUSEVA, G. V.

Diazo Compounds

Reactions of aliphatic diazo compounds with unsaturated compounds. Part 12. Investigation of reactions of condensation of diphenyldiazomethane and diazoacetic ester with allyl acetate. Zhure. ob. khim., 22, No. 8, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

GUSEVA, O. V.

Reactions of aliphatic diazo compounds with unsaturated compounds. XV. *trans*-2-(Halomethyl)cyclopropane-1-carboxylic acids and their esters. I. A. D'yakonov and O. V. Guseva (A. A. Zhdanov State Univ. Leningrad). *Sbornik State Obshch. Khim. Akad. Nauk S.S.S.R.* 1, 425-33 (1953); cf. C.A. 48, 3318f. — Reactions of 2-hydroxymethyl- and 2-halomethylcyclopropane-1-carboxylic acids or their esters are not accompanied by isomerizations or rearrangements in contrast to the observations of Dem'yanov on  $\alpha$ -hydroxy(or halo)alkyl cyclopropanes. To 23.2 g. 2-hydroxymethylcyclopropanecarboxylic acid (I) was slowly added 9.1 g. PCl<sub>5</sub>, the mixt. heated until HCl evolution ceased at 50-55°, then treated with 27.5 g. PCl<sub>5</sub> and heated further 3 hrs. finally to 90°; on cooling the liquid was decanted into ice H<sub>2</sub>O, while the solid material was similarly hydrolyzed; extr. with C<sub>6</sub>H<sub>6</sub> gave 25-30% crude product, which gave 12-15% pure *trans*-2-chloromethylcyclopropane-1-carboxylic acid (II), m. 90.5-1.5° (from CHCl<sub>3</sub>-petr. ether), Raman spectrum given. The acidic aq. mother liquor on treatment with NaHCO<sub>3</sub> followed by prolonged extr. with Et<sub>2</sub>O gave 40% original I, m. 63-4°. The yields of the Cl deriv. were not improved by using various solvents or higher temp. To a liquid mixt. of SOCl<sub>2</sub>-POCl<sub>3</sub> obtained from 65 g. PCl<sub>5</sub> was added 16 g. I at 0°, followed by 11 g. pyridine, the mixt. was then slowly heated to 90° and kept there until gas evolution stopped; the mixt. was filtered and the filtrate treated with ice H<sub>2</sub>O yielding 99% II, m. 80.5-1.5°. Oxidation of 3.8 g. II with 3% KMnO<sub>4</sub> in 10% KOH gave *trans*-cyclopropane-1,2-dicarboxylic acid (III), m. 104-6° (crude), pure, m. 174-5°. To 5 g. Na dissolved in 60 ml. EtOH was added 9.1 g. II and the mixt. refluxed 3 hrs., yielding after neutralization, evapn., and acidification, 43.6% *trans*-2-

chloromethylcyclopropane-1-carboxylic acid, b.p. 87°, n<sub>D</sub><sup>20</sup> 1.4385, n<sub>D</sub><sup>25</sup> 1.4325, d<sub>4</sub> 1.065; after standing the product solidified, m. 41° (from petr. ether). The same product forms in 42% yield from II and KOH soln. in abs. EtOH after 2 hrs. reflux. Oxidation of the product with KMnO<sub>4</sub> gave III. To 3.48 g. I was added 21.0 g. PBr<sub>5</sub> and the mixt. was briefly heated to 85°, cooled and treated with ice, yielding an oily alkyl bromide, which on gentle warming in H<sub>2</sub>O gave 78.2% *trans*-2-bromomethylcyclopropane-1-carboxylic acid, m. 97.5-8° (from CHCl<sub>3</sub>-petr. ether). If the intermediate reaction mixt. is treated with abs. EtOH instead of ice, there is formed 33% Et ester of *trans*-2-

bromomethylcyclopropane-1-carboxylic acid, b.p. 103°, d<sub>4</sub> 1.393, d<sub>20</sub> 1.370, d<sub>25</sub> 1.364, n<sub>D</sub><sup>20</sup> 1.4787, n<sub>D</sub><sup>25</sup> 1.4773; the product yields AgBr on treatment with AgNO<sub>3</sub>, Raman spectrum given. This (4.14 g.) added to 1.5 g. Na in abs. EtOH and refluxed 1.5 hrs. gave the above described *trans*-2-chloromethylcyclopropane-1-carboxylic acid (IV), m. 40°. Refluxing 10.7 g. II in MeEtCO with 15 g. NaI 12 hrs. gave 98% *trans*-2-iodomethylcyclopropane-1-carboxylic acid, m. 85.5-6° (from Me<sub>2</sub>CO-petr. ether); this acid is not very stable and readily loses its iodine with AgNO<sub>3</sub> or in alkaline solns. Treated with NaOEt in EtOH it gave 67.2% IV. Refluxing the iodo acid with dil. NaOH readily gave I. Refluxing I with 10% H<sub>2</sub>SO<sub>4</sub> 6 hrs. gave 70% original acid, but the use of 25% H<sub>2</sub>SO<sub>4</sub> prevented the recovery of I. XVI. Reaction of diazoacetic ester with isoprene and the derivatives of cyclopropane and bicyclopropane. I. A. D'yakonov and V. E. Myznikova. *Ibid.* 489-97; cf. C.A. 47, 4293c. — To 100 g. CH<sub>2</sub>=CMeCH=CH<sub>2</sub> and 0.5 g. dry CuSO<sub>4</sub> under N was added at reflux 87 g. Et diazoacetate; evolution of N usually did not begin even after 30-60% of the ester had been added; the reaction is initiated by the addn. of 0.2-0.3 g. powd. Cu bronze after about 50% of the ester has been added. Induction period is reduced by the catalyst very significantly. After 4-6 hrs. some 80% N had been evolved; evapn. of the residue and distn. gave 35.8% Et-2-methyl-2-vinylcyclopropane-1-carboxylate (I), b.p. 80-1°.

A. Dyakonov and

O.V. Guseva

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$n_D^{20}$  1.4522, along with a minor by-product, which was purified from the combined products of several runs; this material is composed of 12.6% di-Et fumarate and a mixt. (II) of unseparated, isomeric di-Et esters,  $C_{10}H_{16}O_4$ . Pure I b, 60-1°,  $d_4^{20}$  0.9451,  $n_D^{20}$  1.4515. Oxidation of I with  $KMnO_4$  gave AcOH and 49% *trans*-1-methylcyclopropane-1,3-dicarboxylic acid (III), m. 163°. Ozonolysis of I gave  $HCO_2H$ ,  $CO_2$ , and a substance, b.p. 115-50°, which was further treated with  $KMnO_4$  yielding III; in addn., there was also obtained crude 2-acetylcyclopropane-1-carboxylic acid, identified only provisionally. Hydrogenation of I over Pt in 95% EtOH gave Et 2-methyl-2-ethylcyclopropane-1-carboxylate (IV), b.p. 61°,  $b_M$  63-4°,  $d_4^{20}$  0.9078,  $n_D^{20}$  1.4276. II,  $d_4^{20}$  1.500,  $n_D^{20}$  1.4600, was ozonized and the product heated with alkali to saponify any esterified material; there was obtained no AcOH and only traces of  $HCO_2H$ , but there was obtained a good yield of 2-methyl-2,3-bicyclopropane-1,1'-dicarboxylic acid (V), m. 109-70°. I (14.3 g.) and 0.8 g.  $CuSO_4$  heated with 10 g. Et diazoacetate as above gave 47.6% di-Et ester of V, b.p. 113°,  $d_4^{20}$  1.0470,  $n_D^{20}$  1.4617. Hydrolysis of this with 2N NaOH at reflux gave a low yield of V, m. 169-70°, whose di-Ag salt is sparingly sol. in  $H_2O$  and is unstable in light. V itself is rather unstable on heating, since it readily forms a glue-like mass on a steam bath (cf. Staudinger, *et al.*, *C.A.* 18, 2135). It appears thus that with catalysis by  $CuSO_4$  the addn. of diazoacetate to isoprene occurs in 1,3-position, rather than in 3,4-position. The Raman spectra of I and IV are given. G. M. K.

GUSEVA, O. V.

Guseva, O. V. On boundary problems for strongly elliptic systems. Dokl. Akad. Nauk SSSR (N.S.) 102 (1975), 1069-1072. (Russian) I-5/7

Soit  $A$  un opérateur différentiel fortement elliptique d'ordre  $2m$  dans un ouvert  $D$  de  $\mathbb{R}^n$ , de frontière assez régulière. Soit  $W^m_2(D)$  l'espace de Hilbert du second ordre (remplacer  $D$  par  $\Omega$ ). Soit  $W^m_2(D)$  l'adhérence dans  $W^m_2(D)$  des fonctions à support compact. L'opérateur  $A$  est un isomorphisme de  $W^m_2(D)$  sur son dual. Si alors on donne  $f$  dans  $W^m_2(D)$ ,  $l \geq 0$ , la solution dans  $W^m_2(D)$  de  $Au = f$ , a des propriétés supplémentaires. L'A. annonce ceci: si  $f \in W^m_2(D)$ ,  $l \geq 0$ , alors  $u \in W^{m+l}_2(D)$  (sous des hypothèses convenables sur les coefficients de  $A$ ). Même chose pour les systèmes. L'A. annonce enfin que l'on a des résultats analogues pour les autres problèmes aux limites usuellement attachés à  $A$ : problème du type Neumann, Neumann-Dirichlet, etc. (P. 1070, l. 6, lire  $W^m_2$  au lieu de  $W^m_2$ .)

J. L. Lions (Nancy).

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Automorphisms of generalized solenoidal groups. Vest. LGU 17  
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GUSEVA, O.V.

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D274/D302

AUTHOR: Guseva, V. V.

TITLE: An unsteady boundary value problem for a viscous incompressible fluid

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 4, 1961, 122 - 137

TEXT: Potential theory is used; Green's tensor (the parametrix) is constructed for the linear problem in three-dimensional half-space and then used to study the corresponding nonlinear problem. An apriori estimate of the solution "in the large" is proved: assuming the boundedness of the solution, it is shown that it and its first space derivatives satisfy Lipshitz's integral condition. On the parametrix of linear problem and its estimates, the following notations are adopted:  $\Omega$  half-space  $y_1 \geq 0$  of three-dimensional Euclidean space;  $Q$  - cylinder in  $\Omega \times [0 \leq t < T]$  for any  $T' \in (0, T)$ ;  $Q_{T'}$  - cylinder;  $\vec{L}_p$ ,  $\vec{W}_p^l$ ,  $\vec{C}^l$  - three-dimensional space of vector-functions  $\lambda$   
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tions. The linear problem for  $\Omega$  consists in finding the vector-function  $u(y, t)$  which satisfies in  $Q$  the equalities

$$\frac{\partial u_v}{\partial t} - \Delta u_v - \frac{\partial p}{\partial y_v} = f_v, \quad \sum_{v=1}^3 \frac{\partial u_v}{\partial y_v} = 0, \quad (v = 1, 2, 3), \quad (1.1)$$

$$u_v|_{y_1=0} = 0, \quad u_v|_{t=0} = 0.$$

The parametrix  $G$  of the linear problem conjugated to (1.1) is defined as the tensor with elements  $G_{vk}(y, t, x, \tau, \epsilon)$  ( $v, k = 1, 2, 3$ ), satisfying certain conditions. The parametrix  $G$  is constructed as the sum of two terms

$$G(y, t, x, \tau, \epsilon) = \psi(y, t, x, \tau, \epsilon) + \eta(y, t, x, \tau, \epsilon) \quad (1.5)$$

the first of which is the fundamental solution of the linear problem, satisfying

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$$\begin{aligned} \frac{\partial \psi_{v,k}}{\partial t} - \Delta_y \psi_{v,k} - \frac{\partial p_k}{\partial y_v} &= \delta_{v,k} \delta_\epsilon (y - x, t - \tau), \quad (v, k = 1, 2, 3) \\ \sum_{j=1}^3 \frac{\partial \psi_{v,k}}{\partial y_j} &= 0, \\ \psi_{v,k} &= 0, \quad \tau - t \leq 0, \end{aligned} \quad (1.6)$$

and the second satisfies the relations:

$$\begin{aligned} -\frac{\partial \eta_{v,k}}{\partial t} \Delta_y \eta_{v,k} - \frac{\partial p_k}{\partial y_v} &= 0, \\ \sum_{v=1}^3 \frac{\partial \eta_{v,k}}{\partial y_v} &= 0, \quad (v, k = 1, 2, 3) \\ \eta_{v,k} |_{y_i=0} &= -\psi_{v,k} |_{y_i=0}, \\ \eta_{v,k} &= 0, \quad \tau - t \leq 0. \end{aligned} \quad (1.7)$$

Eq. (1.6) is satisfied for the following tensor functions

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$$\psi_{\alpha}(y, t, x, \tau, e) = (2\pi)^{-4} \iiint_{-\infty}^{\infty} \frac{x(l_0, l_1, l_2, l_3, e)}{u_0 + l_1^2 + l_2^2 + l_3^2} \frac{(l_1^2 + l_2^2 + l_3^2) \delta_{\alpha k} - l_1 l_k}{l_1^2 + l_2^2 + l_3^2} \times \\ \times e^{i l_0(\tau-t) + i \sum_{s=1}^3 l_s(y_s - x_s)} dl_0 dl_1 dl_2 dl_3. \quad (1.8)$$

Further, the tensor functions

$$\vec{\eta}_k(y, t, x, \tau, e) = \sum_{\substack{r=1,2,3 \\ j=1,2}} \vec{\eta}_k^{(r)}(y, t, x, \tau, e) \quad (1.12)$$

or

$$\eta_{\alpha k}(y, t, x, \tau, e) = \sum_{\substack{r=1,2,3 \\ j=1,2}} \eta_{\alpha k}^{(r)}(y, t, x, \tau, e), \quad (1.13)$$

$$\vec{\eta}_k^{(r)}(y, t, x, \tau, e) = \iiint_{-\infty}^{\infty} \alpha_k^{(r)}(l_0, l_1, l_2, l_3, e) \vec{\gamma}^r(l_0, l_1, l_2, l_3) \times \\ \times e^{i l_0 y_0 + i l_1 y_1 + i l_2 y_2 + i l_3 y_3 + i l_0(\tau-t) + i \sum_{s=1}^3 l_s(y_s - x_s)} dl_0 dl_1 dl_2 dl_3. \quad (1.14)$$

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where  $L_1 = i l_1', L_2 \equiv L_3 \equiv i \sqrt{l_1'^2 + l_0}$  (1.15)

are constructed; ( $\bar{y}^T$  is a vector). The functions in the right-hand sides of (1.8) and (1.14) are analytic. Some estimates for the constructed tensor-functions (1.8) and (1.12-1.14) are derived. The integrals contained in these expressions are evaluated by using the properties of the analytic functions under the integral. The result is formulated as Theorem 1: For the parametrix G of (formula (1.5)), of the linear problem, conjugated to problem (1.1), the estimates

$$\begin{aligned} |G_h(y, t, x, \tau, \varepsilon)| &\leq c_{16} \max_{l=1,2} \left\{ \frac{1}{(\tau-t+r_l^2)^{1-\frac{1}{N}} [\tau-t+(y_1+(-1)^l x_1)^2]^{\frac{1}{2}+\frac{1}{N}}} \right\}, \\ \left| \frac{\partial^q G_h(y, t, x, \tau, \varepsilon)}{\partial t^{m_0} \partial y_1^{m_1} \partial y_2^{m_2} \partial y_3^{m_3}} \right| &\leq c_{17} \max_{l=1,2} \left\{ \frac{1}{(\tau-t+r_l^2)^{1-\frac{1}{N}} [\tau-t+(y_1+(-1)^l x_1)^2]^{\frac{1+q+m_0}{2}+\frac{1}{N}}} \right\}, \\ q &= m_0 + m_1 + m_2 + m_3, \end{aligned} \quad (1.43)$$

$$\left| \frac{\partial^q G_h(y, t+h, x, \tau, \varepsilon)}{\partial t^{m_0} \partial y_1^{m_1} \partial y_2^{m_2} \partial y_3^{m_3}} - \frac{\partial^q G_h(y, t, x, \tau, \varepsilon)}{\partial t^{m_0} \partial y_1^{m_1} \partial y_2^{m_2} \partial y_3^{m_3}} \right| \leq$$

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$$\leq c_{18} \max_{i=1,2} \left\{ \frac{1}{(\tau-t+r_i^2)^{1-\frac{1}{N}} [\tau-t+(y_1+(-1)^i x_1)^2]^{\frac{1+q+m_0+1}{2}+\frac{1}{N}}} \right\}, \quad (1.43)$$

$$\left| \frac{\partial^q G_{\alpha h}(y+h, t, x, \tau, z)}{\partial t^{m_0} \partial y_1^{m_1} \partial y_2^{m_2} \partial y_3^{m_3}} - \frac{\partial^q G_{\alpha h}(y, t, x, \tau, z)}{\partial t^{m_0} \partial y_1^{m_1} \partial y_2^{m_2} \partial y_3^{m_3}} \right| \leq$$

$$\leq c_{19} \max_{i=1,2} \left\{ \frac{1}{(\tau-t+r_i^2)^{1-\frac{1}{N}} [\tau-t+(y_1+(-1)^i x_1)^2]^{\frac{1+q+m_0+1}{2}+\frac{1}{N}}} \right\}.$$

are valid (which do not depend on  $\varepsilon$ ). Apriori estimates of the solution "in the large" are then given. The parametrix constructed above, can be used for giving estimates to the solution of the unsteady boundary-value problem

$$\frac{\partial u_v}{\partial t} - \Delta u_v + \sum_{h=1}^3 u_h \frac{\partial u_v}{\partial y_h} + \frac{\partial p}{\partial y_v} = f_v, \quad (2.1)$$

$$\sum_{v=1}^3 \frac{\partial u_v}{\partial y_v} = 0, \quad (v=1, 2, 3)$$

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$$u_\nu|_{y_1=0} = 0, \quad u_\nu|_{t=0} = 0. \quad (2.1)$$

In order that these estimates should apply to the solution  $u(y, t)$ , it is sufficient that this solution be bounded in a space defined by the energy inequality; that is, it is sufficient that the vector function  $u(y, t)$  be the solution of (2.1) in the following formulation: The generalized solution of (2.1), where  $f(y, t) \in \bar{L}_2(Q) \cap \bar{L}_1(Q)$ , is defined as the function  $u(y, t) \in \bar{L}_2(Q)$  with generalized derivatives of type  $\partial u / \partial y_j$  of  $\bar{L}_2(Q)$ , and satisfying the equalities

$$\sum_{k=1}^3 \frac{\partial u_k}{\partial y_k} = 0, \quad \int_0^T \int_\Omega \sum_{\nu=1}^3 [u_\nu (\frac{\partial \varphi_\nu}{\partial t} + \Delta \varphi_\nu) - (\sum_{j=1}^3 u_j \frac{\partial u_\nu}{\partial y_j} - r_\nu) \varphi_\nu] dy \, dt = 0 \quad (2.2)$$

for any function  $\varphi(y, t)$  for which

$$\sum_{k=1}^3 \frac{\partial \varphi_k}{\partial y_k} = 0 \quad \text{X} \quad (2.3)$$

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$$\varphi_\nu|_{y_1=0} = 0, \quad (\nu = 1, 2, 3), \quad \varphi_\nu|_{t=T} = 0. \quad (2.3)$$

Further, one obtains

$$u_k^*(x, \tau) = \sum_{n=1}^3 \int_0^\tau \int_0^1 G_{n,k}(y, t, x, \tau, \varepsilon) \tilde{f}_n(y, t) dy dt \quad (k=1, 2, 3). \quad (2.4)$$

$$\tilde{f}_n = f_n - \sum_{j=1}^3 u_j \frac{\partial u_n}{\partial y_j} \quad (2.5)$$

$$u_k^*(x, \tau) = \int_0^\tau \int_0^1 u_k(y, t) \delta_+(y-x, t-\tau) dy dt. \quad (2.6)$$

A lemma is proved which leads to the following estimate of the vector-function (2.4):

$$\|u^*\|_{\tilde{K}_Q^\alpha} \leq c(\alpha) \|\tilde{f}\|_{\tilde{L}_1(Q)^\alpha} \in (0, 1) \quad (2.11)$$

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(which is independent of  $\varepsilon$ ). Finally, Theorem 2 is formulated: The generalized solution  $u(y, t)$  of (2.1) belongs to  $K_Q^\alpha$  for any  $\alpha \in (0,1)$  and any finite subregion  $Q'$  of the cylinder  $Q$ , and allows the estimate:

$$\|u\|_{K_Q^\alpha} \leq c(\alpha) \left[ \|f\|_{L_1(Q)} + \|u\|_{L_1(Q)}^2 + \sum_{j=1}^3 \left\| \frac{\partial u}{\partial y_j} \right\|_{L_1(Q)}^2 \right].$$

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20-2-44/60

AUTHOR: Guseva, S. N.

TITLE: New Data Concerning the Stratigraphy of the Upper Part of the Lower Carboniferous of the Eastern Slope of the Central Urals (Novyye dannye po biostratigrafii verkhney chasti nizhnego karbona vostochnogo sklona Srednego Urala)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp.394-397 (USSR)

ABSTRACT: In the geological investigations in the field of the deposits of the Lower Carboniferous in this area, scientists mainly use the stratigraphic scheme devised by Librovich as modified by Pronin. Upon suggestion by the latter, the author of the paper under review carried out an investigation of the brachiopod fauna of the Upper Visé and Namur deposits. As result of this research work, the different fauna schemes, with respect to the different levels, have been considerably enriched. This, in turn, made it possible to draw conclusions as to the age of the upper levels in the Visé and Namur deposits. Inter alia, the sediments of the uppermost Visé step

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